WE CLAIM:

1. A disk drive comprising:

(a) a disk comprising a plurality of tracks, each track comprising a plurality of data sectors;

(b) a head actuated radially over the disk, the head for generating a read signal while reading data from at least one of the data sectors;

(c) a buffer for buffering read data associated with the read signal;

(d) a disk controller for processing a read command received from a host computer by:

positioning the head over a selected data sector to generate a first read signal;

storing in the buffer first read data associated with the first read signal;

if a read error occurs:

repositioning the head over the selected data sector to generate a second read signal;

averaging second read data associated with the second read signal with the first read data stored in the buffer to generate averaged read data;

storing the averaged read data in the buffer; and

processing the averaged read data stored in the buffer to recover the selected data sector.

2. The disk drive as recited in claim 1, wherein the read data comprises binary bits detected from the read signal such that the averaged read data comprises averaged binary bits.

3. The disk drive as recited in claim 2, wherein the disk controller implements an error correction code (ECC) for detecting and correcting errors in the averaged binary bits.

4. The disk drive as recited in claim 3, wherein:

(a) the averaged binary bits are grouped into ECC symbols;

(b) a reliability metric is generated for each ECC symbol in response to a reliability derived from averaging the binary bits; and

(c) the disk controller processes the reliability metrics to augment the ECC.

5. The disk drive as recited in claim 4, wherein:

(a) at least one erasure pointer is generated from the reliability metrics; and

(b) the disk controller processes the erasure pointer to increase the number of correctable ECC symbols.

6. The disk drive as recited in claim 1, wherein the read data comprises read signal sample values generated by sampling the read signal such that the averaged read data comprises averaged read signal sample values.

7. The disk drive as recited in claim 6, further comprising a read channel for detecting an estimated data sequence from the averaged read signal sample values.

8. The disk drive as recited in claim 7, wherein the read channel comprises:

(a) an equalizer filter for filtering the averaged read signal sample values to generated equalized read signal sample values; and

(b) a sequence detector for detecting the estimated data sequence from the equalized read signal sample values.

9. The disk drive as recited in claim 1, wherein the disk controller adjusts at least one parameter of the disk drive prior to rereading the selected data sector.

10. The disk drive as recited in claim 9, wherein the disk controller adjusts a read channel parameter.

11. The disk drive as recited in claim 9, wherein the disk controller adjusts a servo control parameter.

12. The disk drive as recited in claim 11, wherein the disk controller adjusts a tracking offset to at least two different settings wherein for each tracking offset setting the disk controller performs at least one reread of the selected data sector to generate the averaged read data.

13. The disk drive as recited in claim 12, wherein for each tracking offset setting the disk controller performs multiple rereads of the selected data sector to generate the averaged read data.

14. A method of recovering an errant data sector in a disk drive, the disk drive comprising a disk having a plurality of tracks, each track comprising a plurality of data sectors, a head actuated radially over the disk, the head for generating a read signal while reading data from at least one of the data sectors, and a buffer for buffering read data associated with the read signal, the method comprising the steps of:

(a) receiving a read command from a host computer;

(b) positioning the head over a selected data sector to generate a first read signal;

(c) storing in the buffer first read data associated with the first read signal;

if a read error occurs:

(d) repositioning the head over the selected data sector to generate a second read signal;

(e) averaging second read data associated with the second read signal with the first read data stored in the buffer to generate averaged read data;

(f) storing the averaged read data in the buffer; and

(g) processing the averaged read data stored in the buffer to recover the selected data sector.

15. The method as recited in claim 14, wherein the read data comprises binary bits detected from the read signal such that the averaged read data comprises averaged binary bits.

16. The method as recited in claim 15, further comprising the step of using an error correction code (ECC) for detecting and correcting errors in the averaged binary bits.

17. The method as recited in claim 16, further comprising the steps of:

(a) grouping the averaged binary bits into ECC symbols;

(b) generating a reliability metric for each ECC symbol in response to a reliability derived from averaging the binary bits; and

(c) processing the reliability metrics to detect and correct errors in the averaged binary data.

18. The method as recited in claim 17, further comprising the steps of:

(a) generating at least one erasure from the reliability metrics; and

(b) processing the erasure pointer to increase the number of correctable ECC symbols.

19. The method as recited in claim 14, wherein the read data comprises read signal sample values generated by sampling the read signal such that the averaged read data comprises averaged read signal sample values.

20. The method as recited in claim 19, further comprising the step of detecting an estimated data sequence from the averaged read signal sample values.

21. The method as recited in claim 20, further comprising the steps of:

(a) filtering the averaged read signal sample values to generated equalized read signal sample values; and

(b) detecting the estimated data sequence from the equalized read signal sample values.

22. The method as recited in claim 14, further comprising the step of adjusting at least one parameter of the disk drive prior to rereading the selected data sector.

23. The method as recited in claim 22, wherein the step of adjusting a parameter of the disk drive comprises the step of adjusting a read channel parameter.

24. The method as recited in claim 22, wherein the step of adjusting a parameter of the disk drive comprises the step of adjusting a servo control parameter.

25. The method as recited in claim 24, further comprising the steps of adjusting a tracking offset to at least two different settings wherein for each tracking offset setting rereading the selected data sector at least once to generate the averaged read data.

26. The method as recited in claim 25, wherein for each tracking offset setting rereading the selected data sector multiple times to generate the averaged read data.